

CLAIMS

What is claimed is:

1. An electronic package having a mounted semiconductor chip and a polymeric material, the electronic package comprising:

a metal lead having a first portion that is unexposed on a surface of the package by the polymeric material and a second portion that is exposed, the first portion having a thickness that is less than the second portion, and wherein the first portion extends no less than approximately 0.7 mm and no greater than approximately 1.0 mm from the second portion; and

an electrical interconnection from the first portion to the semiconductor chip.

2. The electronic package of claim 1, wherein the semiconductor chip is mounted upon a metal layer via an adhesive.

3. The electronic package of claim 2, further comprising an electrical interconnection from the metal layer to the semiconductor chip.

4. The electronic package of claim 1, wherein the first portion is formed by etching the metal lead.

5. The electronic package of claim 1, wherein the first portion has a thickness that is no less than approximately 40% of the second portion, and wherein the first portion has a thickness that

is no larger than approximately 85% of the second portion.

6. The electronic package of claim 5, wherein the first portion is approximately 50% of the thickness of the second portion.

7. The electronic package of claim 1, wherein the electrical interconnection is a wire bond.

8. The electronic package of claim 8, wherein the wire bond is no greater than approximately 4.0 mm.

9. The electronic package of claim 1, wherein the second portion has a length of no less than 0.35 mm and no greater than 0.45 mm.

10. A method of forming an electronic package, the method comprising the steps of:
- providing a semiconductor chip mounted to a surface of a metal layer by an adhesive;
- reducing the thickness of a metal lead such that the metal lead includes a first portion having a thickness that is less than a second portion;
- electrically interconnecting the first portion to the semiconductor chip by placing a wire bond to the first portion and heating the first portion with a heater block having a heating section extending above a support section; and
- enclosing at least a portion of the semiconductor chip, the surface of the metal layer and the first portion of the metal lead in a polymeric material, whereby the second portion remains exposed by the polymeric material.
11. The method of claim 10, further comprising the step of electrically interconnecting the metal layer to the semiconductor chip prior to the step of enclosing.
12. The method of claim 10, wherein the step of reducing includes etching the first portion.
13. The method of claim 12, wherein the first portion extends no less than approximately 0.7 mm and no greater than approximately 1.0 mm from the second portion.
14. The method of claim 10, wherein the first portion has a thickness that is no less than approximately 40% of the second portion, and wherein the first portion has a thickness that is no

larger than approximately 85% of the second portion.

15. The method of claim 14, wherein the first portion is approximately 50% of the thickness of the second portion.

16. A heater block for use in fabricating an electronic package having a lead having a first portion having a thickness that is less than a second portion thereof, the heater block comprising:
- an electronic package support section for supporting the second portion; and
 - a raised heating section for heating the first portion, the raised heating section extending above the support section to be adjacent the first portion.
17. The heater block of claim 16, further comprising a plurality of tiebar positioning elements.
18. The heater block of claim 16, further comprising a die pad support section.
19. The heater block of claim 18, wherein the die pad support section includes a vacuum opening for application of a vacuum to a die paddle of the electronic package.
20. The heater block of claim 16, further comprising a support section for the second portion of the lead.